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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,801	08/29/2001	Yoshiro Yamaguchi	110491	4697

25944 7590 07/26/2005

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EXAMINER	
DINH, DUC Q	

ART UNIT	PAPER NUMBER
2674	

DATE MAILED: 07/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/940,801	YAMAGUCHI ET AL.	
	Examiner	Art Unit	
	DUC Q. DINH	2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is response to the Amendment filed on January 26, 2005.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-8, 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon, II et al. (U. S. Patent No. 6,271,823), hereinafter Gordon, in view of Hou et al. (U. S. Patent No. 6,113,810), hereinafter Hou.

In reference to claim 1, Gordon discloses an image display device comprising: a light-transmissive window 2 (corresponding to the display substrate); a rear panel 4 (back substrate); electrode 20 on the window 2 (electrode formed on the display substrate); a wall 24 (spacer); filters (of plurality colors) 30, 32, 34 for transmitting light of a specific wavelength is formed on an opposite side of the window as claimed. Gordon does not disclose two kinds of particles differing in color and charging polarity sealed between the display substrate and the back substrate. However the background arts of Gordon disclose a dispersion for reflective electrophoretic display comprised of two differently colored particles that are oppositely charged are well known. Hou discloses particles of two differently colored particles that are oppositely charged are used for electrophoretic display in Fig. 1.

It would have been obvious for one of ordinary skill in the art at the time of the invention was made to provide of two differently colored particles that are oppositely charged of Hou in the display of Gordon particles for providing a highly contrast images.

In reference to claim 2, Hou discloses the two particles are white and black as claimed.

In reference to claims 3-4, Hou discloses the particles white electrophoretic particles 22 and black electrophoretic particles 24 may be formed from crosslinked polymer particles using a two stage dispersion polymerization technique with and without staining with a metal oxide, respectively. Since the surface functionalities of the electrophoretic particles can be well controlled during the polymerization, the black and white particles can be made with acidic and basic (or basic and acidic) surface characteristics, respectively and can be charged negatively and positively (or positively and negatively) [col.3, lines 45-55].

In reference to claim 5, Gordon discloses in Fig. 1 the substrate and the filter are integrated.

In reference to claim 6, Gordon discloses the color filter medium can, for example, be a light-transmissive colored filter element, a colored light-reflecting panel, or the pigment suspension fluid itself can be colored and serve as the color filter medium (col.3, lines 35-40).

In reference to claim 7, Gordon discloses the filter is divided into 3 regions for red, green, and blue colors.

In reference to claim 8, Gordon discloses the color filer is arranged in stripes

In reference in claim 10, Gordon discloses the he color filter medium selects the color reflected by each cell. The color filter medium can, for example, be a light-transmissive colored filter element disposed across the horizontal area of the cell, either above the suspension or

below the suspension on top of the light-reflecting panel. An appropriately colored pigment suspension fluid, a colored light-reflecting panel, a color diffuser, or a painted surface can also serve as the color filter medium (col. 8, lines 8-18).

In reference to claim 11, Gordon discloses the barrier 22 as archromatic region between filters.

In reference to claim 12, Gordon discloses the wall 24 as claimed.

In reference to claim 13, Gordon discloses electrodes 8 and 20 as claimed.

4. Claims 14-18 rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon in view of Hou, as applied to claims 1-8 and 10-13 above, and further in view of Comiskey (U. S. Patent No. 6,376,828).

In reference to claims 14 and 15, Gordon and Hou do not discloses the irradiating for the display. Comiskey disclose and front light for an electrophoretic display for emitting white light to the inside of the display medium for the display substrate side of the image display medium (see Fig. 1).

It would have been obvious for one of ordinary skill in the art at the time of the invention was made to provide the light source of Comiskey in the combined device of Gordon and Hou for illuminating the display when ambient light decreases (col. 8, lines 15-20).

In reference to claims 16-18, refer to the rejection as applied to claims 14-15. In addition, Comiskey discloses the light transmissive element 8 may comprise additional elements to enhance the versatility of the illuminated nonemissive electronic display 1. In one embodiment of the invention, shown in FIG. 1, a light polarizing film 16 (spectral means) is provided adjacent

first surface 8a to increase the uniformity of light passing through the second face 8b and reaching the viewer 20. In another embodiment of the invention, a red/green/blue absorptive filter (not shown) is provided adjacent the first face 8a or second face 8b of the light transmissive element 8 to alter the wavelength of light passing through the first face 8a or second face 8b thereby creating a colored display (col. 6, line 62 – col. 7, line 6).

5. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gordon and Hou as applied to claims 1-8 and 10-13 above, and further in view of Shirochi (U. S. Patent No. 5,872,654)

In reference to claim 9, Gordon and Hou do not discloses the filter is on of the matrix mosaic type. Sherochi discloses color filters corresponding to three primary colors are placed relative to each pixel and the same color pixels are arranged having the mosaic type as claimed.

It would have been obvious for one of ordinary skill in the art at the time of the invention was made to learn the teaching of Shirochi, i.e.: color filters corresponding to three primary colors are placed relative to each pixel and the same color pixels are arranged having the mosaic pattern in the combined device of Gordon and Hou for providing a display device in which the diffusion for more than three pixels can be easily obtained (col. 2, lines 34-37).

Response to Arguments

6. Applicant's arguments filed on January 26, 2005 have been fully considered but they are not persuasive. Applicant argues that "none of the applied references discloses or suggest an image display medium including at least a filter of plurality of colors for transmitting light o a specific wavelength, the filter is formed on an opposite side of a display substrate from an

electrode as recited in claim 1 and similarly in independent claim 18.... The filter elements 30, 32, 34 and the counter electrode are located on a same side of the front window". However, Gordon discloses the arrangement of FIGS. 1a and 1b includes a red filter element 30 in cell 14, a green filter element 32 in cell 16, and a blue filter element 34 in cell 18. These light-transmissive filter elements 30, 32, 34 are respectively located across the lower surface of the front window 2, between the front window 2 and the counter electrode 20, and are in lateral adjacency in a plane with each other. Each filter element may also be located within the front window, either by embedding a separate filter element within the front window, or by tinting the front window the desired color. The filter elements may also be located on the front surface of the front window. Similarly, the filter elements may be located between the cell and the rear window 4, within the rear window, or on the outer surface of the rear window (see col. 6, lines 35-48). In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., an image medium that encloses particles differing in color and charging polarity so that air is enclosed therein...) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **DUC Q. DINH** whose telephone number is **(571) 272-7686** The examiner can normally be reached on Mon-Fri from 8:00.AM-4:00.PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Edouard Patrick** can be reached on **(571)272-7603**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9306 (for Technology Center 2600 only)

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive, Arlington, Va Sixth Floor (Receptionist)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 305-4700.

DUC Q DINH
Examiner
Art Unit 2674

DQD
October 30, 2004

PATRICK N. EDOUARD
SUPERVISORY PATENT EXAMINER